

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application No.:	09/863,996	)
Filing Date:	May 23, 2001	)
Inventor(s):	Burns et al	)
Group Art Unit:	2655	)
Examiner Name:	Hoyen Vo	)
Customer No.:	27160	)
Title:	WIRELESS SPEECH	)
	RECOGNITION TOOL	)
		)
Confirmation No.:	1863	)
		)

**Applicant's Brief On Appeal**

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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**Real Party In Interest**

Title to the Application is currently in the names of the inventors; Stephen S. Burns, Mickey W. Kowitz and Michael F. Bell. No assignments have been filed to date.<sup>1</sup>

**Related Appeals and Interferences**

There are no other appeals or interferences known to the Appellant or the Appellant's representative, which are believed to directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

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<sup>1</sup> The inventors named above were employed by PocketScript , Inc . at the time of the invention. The assets of PostScript, Inc. were acquired by the Zix Corporation. The undersigned only recently became aware that the application was never assigned and is the process of tracking down the inventors to have an assignment assigned to the Zix Corporation.

### **Status Of Claims**

Claims 1 , 2, 8, 9, 13 and 29 stand rejected under 35 USC § 102(e) as being anticipated by Bennett et al US Patent No. 6,633,846 (“the Bennett et al patent”). Claims 10 and 12 stand rejected under 35 USC § 103(a) as being unpatentable over the Bennett et al patent in view of Kanevsky et al US Patent No. 6,615,171 (“the Kanevsky et al patent”).

### **Status Of Amendments**

All amendments have been entered. The claims as currently amended are included in Appendix A.

### **Summary Of Claimed Subject Matter**

In general, the present invention relates to a data retrieval system for retrieving data from a remote server. Data is retrieved by way of voice commands at a remote client. In order to minimize the complexity of the remote client, no voice recognition software resides in the remote client. Rather, the voice commands are converted to digital data streams that are transmitted to the remote server over a communications network. The digital data streams, representative of the voice commands, are decoded by voice recognition software entirely resident on the server. The decoded commands are then used to look up and retrieve data stored on the server and return it to client.

Claim 1 relates to a system for providing voice generated prescriptions as generally described in paragraph [0025] and paragraphs [0048] et seq. The system includes a client 12, such as a PDA, and a server 18. The server 18 includes a database search engine 28 and a database 24. Voice input relating to a prescription is received at the client 12 and converted to a data stream. As set forth in paragraph [0032] of the specification, the data stream is a direct conversion of the analog voice data to equivalent digital data (“ The recording apparatus records the user’s voice transmission to the data stream, using sound recording methods such as a recording algorithm, software application or other sound recording applications known to those skilled in the art.”). The client includes a communication system for transferring the data stream to the server 18 over a wireless communication link. The server 18 includes speech recognition engine 28 that converts the data stream to text data. The database 24 is searched by the database search engine 28 to determine if the text data representative of the prescription spoken into the

client device is accurate. If the prescription spoken into the client 12 is accurate, a second data stream is transmitted back to the client 12.

. Claim 29 is a method claim for enabling a health care professional to verify patient information by way of voice input to a hand-held device, i. e. Client 12. As discussed above , the voice input allows the health care professional to easily retrieve patient data available in a database 24 over a wireless communication link. Claim 29, similar to claim 1, obviates the need for voice recognition software at the client.

Claims 2 and 8-13 are dependent claims which further limit claim 1 upon which they depend

### **Grounds of Rejection to be Reviewed on Appeal**

- I. The Examiner's rejection of Claims 1 , 2, 8, 9, 11, 13 and 29 under 35 USC § 102(e) as being anticipated by the Bennett et al patent.
- II. The Examiner's rejection of Claims 10 and 12 under 35 USC § 103(a) as being unpatentable over the Bennett et al and Kanevsky et al et al patents.

### **Argument**

#### **I. The Examiner's Rejection of Claims 1, 2, 8, 9, 11, 13 and 29 over the Bennett et al Patent should be reversed**

Claims 1, 2, 8, 9, 11, 13 and 29 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Bennett, et al., U.S. Patent No. 6,633,846 ("the Bennett patent"). In order for there to be anticipation, each and every one of the elements must be found in a single reference. It is respectfully submitted that the claims recite elements clearly not disclosed or suggested by the Bennett patent. For example, the claims recite an input/output device for receiving voice inputs and converting those inputs to a first data stream and transmitting the first data stream to a server. As recited in the claim 1, the server contains a voice recognition engine which receives the first data stream and converts it to text. The server verifies the accuracy of the data in the first data stream. After verifying the accuracy of the data in the first data stream, the server transmits a second data stream back to the client. Claim 1 and dependent claims 2, 8, 9, 11 and 13 recite a client which converts analog voice data to digital data in a well known manner and transmits the digitized voice data to a remote server. The remote server includes a voice recognition engine for converting the digitized voice data to text. As such, the client recited in the claims is fairly

unsophisticated and thus inexpensive in that all of the voice recognition software resides on the server and none of the voice recognition software resides on the client. The Bennett et al patent discloses a system in which the client device includes a voice recognition system for digitizing the voice input and converting it to speech vectors. (“The client-side software program is comprised of a speech recognition program...” Bennett et al patent , Col. 7, lines 4 and 5; “The output of the partial processing done by SRE 155 is a set of speech vectors that are transmitted over the communication network 160...” Bennett et al patent, Col. 11, lines 6-8). The Bennett et al patent clearly does not disclose or suggest a client having a “user interface” which receives voice input and converts (i.e. digitizes) the voice input and transfers the digitized voice input (i.e. digital data stream) over a communication network to a remote server, as recited in the claims at issue. The Bennett et al teaches an architecture in which “speech vectors” are transmitted over the communication link-not digitized voice data. As such, there can be no anticipation.

Moreover, the claims at issue recite that the server verifies the accuracy of the information in the data stream, i.e. digitized voice data. For example, as set forth in paragraph [0068] of the instant specification , assuming the spoken words are “John Doe” , the server side voice recognition engine would return the following data: John Doe, Jonathon Doe or Jane Doe. The verification as recited in the claims compares these names with data stored in a database hosted on the server. For example, assuming John Doe was the only patient listed on the database, then only data concerning John Doe would be transmitted back to the client. As such, the system recited in the claims at issue verifies the accuracy of the spoken words.

The “verification” disclosed in the Bennett et al patent is really verification of the accuracy of the speech processing software. The Applicant agrees with the Examiner’s characterization of the “verification “ process as set forth in paragraph 3 of the Official Action, mailed on November 1, 2006. The “ verification” process recited in the claims at issue is an improvement of the process taught by the Bennett et al patent. More particularly, as correctly pointed out by the Examiner in the aforementioned Office Action: “The NLE 190 performs a fine search on returned possible matches to determine the best match and then transmit it back to the user at the client device for verification. “ Office Action, dated Nov. 1, 2006, paragraph 3 of the Detailed Action. Using the example above, if the spoken words at the client device are John Doe, the Bennett et al system would likely initially return either John Doe , Jonathon Doe or Jane

Doe. The determination of the best possible match is based upon the accuracy of the speech processing engine. As such, the verification process disclosed in the Bennett et al patent does not verify the accuracy of the spoken words. For example, in the Bennett et al system if the spoken words were Jane Doe, “Jane Doe “ would be returned to the client. Using the example above, if the spoken words to the client device in the system in accordance with the present invention were Jane Doe and Jane Doe was not a patient as determined by comparison with data in the database, the system would return data to the effect that Jane Doe is not a patient. Thus, the system recited in the claims at issue actually verifies the accuracy of the spoken word and not just the accuracy of the voice recognition system. The Bennett et al patent does not disclose any means for verifying the accuracy of the spoken word as recited in the claims at issue. For all of the above reasons, it is respectfully submitted that the Bennett et al patent does not anticipate claims 1, 2, 8, 9, 11 and 13 .

Claim 29 is a method claim similar in scope to the apparatus claims at issue except Claim 29 does not the verification step. The method recited in claim 29 requires a similar architecture as the apparatus claims mentioned above with respect to the client device. In particular, claim 29 requires transmission of digitized voice data, i.e. a digital data stream from the client device to the remote server. As mentioned above, the Bennett et al system teaches a client device which includes voice recognition software and transmits speech vectors to the remote server. For these reasons and the reasons above, it is respectfully submitted that Claim 29 is not anticipated by the Bennett et al patent. The Board is respectfully requested to reverse the Examiner’s rejection of Claims 1, 2, 8, 9, 11, 13 and 29.

**II. The Examiner’s rejection of Claims 10 and 12 under 35 U.S.C. 103(a) as being unpatentable over the Bennett et al and Kanevsky et al patents should be reversed.**

Claims 10 and 12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Bennett et al. patent in view of “Official Notice”. Analyzing these claims under the test set forth by the Supreme Court in *Graham v. John Deere* , requires that (1) the scope and content of the prior art be determined; (2) the differences between the prior art and the invention be determined; and whether those differences would be obvious to one of ordinary skill in the art considering the invention as a whole.

Claims 10 and 12 are dependent upon claim 1. As such many of the arguments set forth above are applicable. In particular, as mentioned above, the Bennett et al patent does not disclose a system which verifies the accuracy of the spoken word. The system in the Bennett et al patent simply verifies the accuracy of the voice recognition system. Also, the system recited in the claims simply transmits the digitized voice commands from the client to the server, thus obviating the need for any voice recognition software on the client. Such speech processing is highly computational intensive. Although the Bennett, et al. system purports to have real time performance, such real time performance could only be provided with a relatively expensive processor in order to achieve such real time performance and still handle the computational intensive processing required for speech recognition. ( ... the system achieves a real time performance that is believed to be highly optimized, because other latencies (i.e., client side computational latencies, packet formation latencies, transmission latencies are minimized). Bennett, et al., U.S. Patent No. 6,633,846, column 23, lines 1-4)).

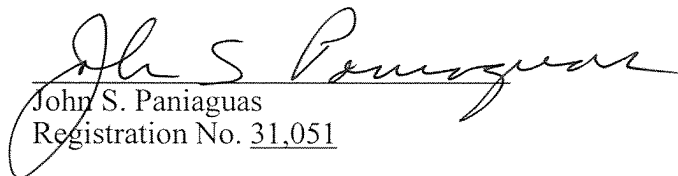
The system recited in the claims at issue eliminates the need for an expensive processor for the client side device by simply utilizing the client device to convert the voice data to a first data stream, for example, a simple analog to digital conversion. As such, it is respectfully submitted that the Bennett patent *teaches away* from a client architecture which allows a relatively inexpensive client device, such as a PDA, to be used to access data from a remote data base as in the claims recited in the claims at issue. Based on these reasons, it is respectfully submitted that Claims 10 and 12 define patentable subject matter over the Bennett et al patent. The Board is respectfully requested to reverse the Examiner's rejection of these claims.



### Conclusion

For all of the above reasons, the Board is respectfully requested to reverse the Examiner's rejections of the claims.

Respectfully Submitted,

  
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**APPENDIX A**  
**CLAIMS ON APPEAL**

1. A system for providing voice generated prescriptions comprising:

an input/output device which includes a user interface for receiving the voice of a user and converting it to a first data stream, said input/output device including a communication system for transferring said first data stream over a wireless communication link to a remote server system;

a remote server system for receiving said first data stream from the input/output device over said wireless communication link, said server system configured for processing the first data stream, exchanging data information with a database search engine and a database to verify the accuracy of the data in said first data stream based on data stored in the database, and transmitting a second data stream representative of a prescription back to said input/output device over said wireless communication link, said remote server having a speech recognition search engine for receiving said first data stream and converting it to text data representative of a prescription and providing said text data to said database search engine and generating said second data stream based upon said prescription representative data and data stored in a database, accessible by said remote server.

2. The system in claim 1, wherein the input/output device is a wireless hand-held device.

8. The system as recited in claim 1, wherein said database includes related information, thereby enabling the server system to compare information in the first data with information stored in the database to verify the accuracy of the data in the first data stream.

9. The system as recited in claim 1, wherein the input/output device further includes a compression mechanism for compressing the first data stream.

10. The system as recited in claim 1, wherein the input/output device further includes an encryption mechanism for encrypting the first data stream.

11. The system as recited in claim 1, wherein the server system further includes a decompression mechanism for decompressing said first data stream.

12. The system as recited in claim 1, wherein the server system further includes a decryption mechanism for decrypting said first data stream.

13. The system as recited in claim 1, wherein said server system is configured to compare information in said first data stream with information stored in the database to verify the accuracy of the data in said first data stream.

29. A method for enabling a healthcare professional to verify certain information relating to a patient, the method comprising the steps of:

(a) providing the health care professional with a hand-held device configured to receive voice input from said health care professional and convert said voice input to a first data stream representative of patient information and transmit said patient representative information to a remote server;

(b) providing patient information on a database, accessible by said health care professional by way of said hand held device over a wireless communication link;

(c) providing a remote server for receiving said first data stream from said hand-held device and converting it to text data in order retrieve patient data from said database; and

(d) returning patient data retrieved data from said data base to said hand held device

**APPENDIX B**  
**EVIDENCE APPENDIX**

None

**APPENDIX C**  
**RELATED PROCEEDINGS APPENDIX**

None